

CLAIM AMENDMENTS

Please amend the claims by canceling claims 21 – 26, without prejudice, and adding new claims 27 – 33, as indicated on the following listing of all the claims in the present application after this Amendment:

1 – 14. (cancelled)

15. (currently amended) In a non-volatile memory system having memory cells organized into a plurality of blocks that are individually addressable for simultaneously erasing the memory cells within a block, wherein the blocks individually store a plurality of pages of data, the pages being designated to individually store at least one sector of user data and associated overhead data including at least one attribute of the associated user data stored in the page and at least one physical attribute of the block in which the page is stored, an improved method of operating the memory system, comprising:

storing user data in portions of the pages designated to store overhead data in a manner that at least one additional sector of user data is stored in individual ones of the blocks without the storage of overhead data therein as compared with storing both the sectors of user data and the associated overhead data in said individual user data blocks, and

storing said overhead data for a plurality of the user data blocks as corresponding individual records in blocks distinct from those storing the user data.

16. (original) The method according to claim 15, wherein storing said overhead data includes storing overhead data records that individually include a field of attributes of a corresponding one of the user data blocks and a field of user data attributes for individual ones of the user data sectors stored in the corresponding user data block.

17. (original) The method according to claim 16, wherein storing said overhead data includes storing both physical and logical attributes in the field of block attributes.

18. (original) The method according to claim 16, wherein storing said overhead data includes storing within individual ones of the overhead data records logical and physical addresses of the corresponding block.

19. (original) The method according to claim 16, wherein the field of user data attributes includes an error correction code calculated from the user data stored in a corresponding one of the pages in the corresponding block.

20. (original) The method according to claim 16, wherein the field of physical block attributes includes a count of a number of times that the corresponding block has been erased.

21 – 26. (cancelled)

27. (new) A method of operating a re-programmable non-volatile memory system having memory cells organized into distinct groups that are simultaneously erased prior to being re-programmed and configured to individually store a given number of units of user data with overhead data, comprising:

storing within at least some of the groups of memory cells a number of units of user data without overhead data that is greater than said given number, and

storing the overhead data in groups of memory cells distinct from those storing the units of user data.

28. (new) The method of claim 27, wherein storing said overhead data includes storing overhead data records that individually include a field of attributes of a corresponding one of the user data groups and a field of user data attributes for individual ones of the user data units stored in the corresponding user data group.

29. (new) The method of claim 28, wherein storing said overhead data includes storing both physical and logical attributes in the field of user data group attributes.

30. (new) The method of claim 27, wherein storing said overhead data includes storing within individual ones of the overhead data records logical and physical addresses of the corresponding user data group.

31. (new) The method of claim 27, wherein the field of user data attributes includes an error correction code calculated from the user data.

32. (new) The method of claim 27, wherein the field of physical group attributes includes a count of a number of times that the corresponding group has been erased.

33. (new) The method of claim 27, additionally comprising operating the memory cells with a plurality of effective threshold levels in excess of two that correspond to a plurality of alterable states of the individual memory cells in excess of two, whereby the memory cells individually store more than one bit of data.